

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>LAM/EKCB/20667.</b>	<div style="display: flex; justify-content: space-between;"> <div style="text-align: center;"><b>FOR FURTHER ACTION</b></div> <div>see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.</div> </div>	
International application No. <b>PCT/SG2003/000274</b>	International filing date ( <i>day/month/year</i> ) <b>20 November 2003</b>	(Earliest) Priority Date ( <i>day/month/year</i> ) <b>20 November 2003</b>
Applicant <b>AGENCY FOR SCIENCE, TECHNOLOGY AND RESEARCH et al</b>		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 5 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

☒ ☒ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (See Box II).

4. With regard to the title, ☒ the text is approved as submitted by the applicant.  
☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract, ☒ the text is approved as submitted by the applicant  
☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No.  
☐ as suggested by the applicant. ☒ None of the figures  
☐ because the applicant failed to suggest a figure  
☐ because this figure better characterizes the invention

**Box I** Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos :

because they relate to subject matter not required to be searched by this Authority, namely:

2. ☒ Claims Nos : 25-30

because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

The claims do not comply with rule 6.3 of the PCT which states that " The definition of the matter for which protection is sought shall be in terms of the technical features of the invention." The claims are directed to a mutant AlbD polypeptide *per se*.

(see continuation)

3. ☐ Claims Nos :

because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

**Box II** Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

**Remark on Protest**

☐ The additional search fees were accompanied by the applicant's protest.

☐ No protest accompanied the payment of additional search fees.

**Supplemental Box**

(To be used when the space in any of Boxes I to VIII is not sufficient)

**Continuation of Box No: I**

As such, the claims are not limited to the technical feature of the invention which appears to reside in a method of enriching the GC content of a DNA molecule or of making mutations by using the GC enrichment method.

In contrast, the claims simply define a mutant polypeptide. Thus as the claims are not restricted to the technical feature of the invention they were not the subject of an additional search.

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/SG2003/000274**A. CLASSIFICATION OF SUBJECT MATTER**Int. Cl. <sup>7</sup>: C12N 15/11, C12N 15/01,

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

SEE ABOVE

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SEE BELOW

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPIDS, MEDLINE, CAPLUS, BIOSIS, AGRICOLA (PCR, G C enrichment, mutagenesis, guanine, uracil, mismatch)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	Branda, R. F., <i>et al</i> ; MUTATION RESEARCH, (1999 Jun 30) 427 (2) 79-87. The effect of folate deficiency on the <i>hprt</i> mutational spectrum in Chinese hamster ovary cells treated with monofunctional alkylating agents. Whole document	20-23
A	Szala, S., and Chorazy, M; BULLETIN DE L'ACADEMIE POLONAISE DES SCIENCES, SERIE DES SCIENCES BIOLOGIQUES (1969), 17(5), 277-84 Irreversible denaturation and "thermal fractionation" as the basis of narrowing of mammalian DNA heterogeneity. Whole document	1-23

☒ Further documents are listed in the continuation of Box C☐ See patent family annex

* document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search  
25 February 2004

Date of mailing of the international search report

26 FEB 2004

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	Zacharias, M., and Sklenar, H.; BIOPHYSICAL JOURNAL, (2000), Vol 78: 2528-2542 Conformational deformability of RNA: A harmonic mode analysis. Whole document	1-23
A	Fox , K. R., et al; NUCLEIC ACIDS RESEARCH, (2000), Vol 28 (13): 2535-2540. Recognition of GT mismatches by Vsr mismatch endonuclease. Whole document	1-23